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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,317	10/20/2000	Kia Silverbrook	ART85US	8404
24011	7590	12/01/2004	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			POON, KING Y	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/693,317	<b>Applicant(s)</b> SILVERBROOK ET AL.	
	<b>Examiner</b> King Y. Poon	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The amendment to the specification and the new drawings filed on 8/18/2004 has been accepted.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1: The limitation of "an apparatus for reading digital data printed on a photograph an image." It is unclear whether the sentence means: the "digital data" is printed on the photograph or "an image" is printed on the photograph.

It is unclear the "invisible ink data" of lines 3-4, is referring to the "digital data" of line 2 or the invisible light signal generated by the invisible ink.

Regarding claims 2-5: Claims 2-5 is rejected under 35 U.S.C. 112, second paragraph because they depend on rejected claim 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunoshita (6,603,864) in view of Soscia (US 5,996,893).

In accordance with claim 1, Matsunoshita discloses an apparatus 52 (figure 20) of reading digital data printed on a printed media in invisible ink.

Matsunoshita further discloses that the apparatus includes a scanner means 57 for scanning in the invisible ink data on the printed media (col. 18 lines 8-9, note; a scanner is a camera system).

Matsunoshita further discloses that the apparatus includes means for advancing the print media through the scanner means and means for illuminating the print media with invisible radiation (col. 17 lines 51-65).

Matsunoshita further discloses that the apparatus includes means 55 for processing the data output from said scanner means including means for decoding said data; in Matsunoshita's system, the scanner means 57 detects infrared data on the image and the embedding unit 55 processes the data output from the scanner means 57 for decoding and sends it to the personal computer (col. 18 lines 14-18).

Matsunoshita further discloses that the apparatus includes ink jet printer means for printing out the image derived from said decoded data on a print media attached to said ink jet means, in Matsunoshita's system, print 51 uses 5 inks to print the images YMCK and IR toner (col. 16 lines 62-65).

Matsunoshita's system primarily teaches detecting and printing using IR toner for encoding and decoding bar codes and copyright information, and hence does not

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disclose expressly the encoding of image data. However, Matsunoshita does disclosed that the data encoded could be any other form of data (col. 8 line 25), thus anticipating the encoding of image data as well.

Matsunoshita does not teach the print media is a photograph with printed invisible digital data. However, scanning a photograph is inherent properties of a scanner.

Soscia, in the same area of printing and scanning invisible image on a printed media (column 1, lines 40-45, column 5, lines 30-40, column 6, lines 60-65), teaches scanning a photograph (column 1, lines 40-45) printed with digital images (column 5, lines 30-40, column 6, lines 60-65).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the print media of Matsunoshita to include a photographs with digital data printed in invisible ink.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the print media of Matsunoshita by the teaching of Soscia because of the following reasons: (a) since digital camera becomes more popular, it is desirable of creating photographs having digital data printed with invisible ink, column 1, Soscia; and (b) it would have allowed Matsunoshita's system to be widely used by users of digital camera without any modification to the system of Matsunoshita.

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In accordance with claim 4, Matsunoshita discloses that the printer 51 embeds the data printed in IR ink into the image printed from the image data (col. 16 lines 4-6 and 8-9).

In accordance with claim 3, Matsunoshita discloses using IR ink as the invisible ink (col. 16 line 6).

6. Claims 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunoshita (6,603,864) in view of Soscia (US 5,996,893) as applied to claim 1 above, and further in view of Zhang (US 5,771,245).

In accordance with claims 2 and 5, Matsunoshita does not disclose expressly that the image data is encoded and decoded using the Reed-Solomon process.

Zhang discloses using the Reed-Solomon process to encode/decode data (col. 4 lines 18-20).

Matsunoshita and Zhang are combinable because they are from the same field of endeavor, namely two-dimensional data encoding and decoding.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to use the Reed-Solomon process, as taught by Zhang, as the encoding/decoding process in Matsunoshita's system.

The motivation for doing so would have been that the Reed-Solomon process is a well-known process in the art to protect encoded data (Zhang: col. 4 lines 18-20).

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

With respect to applicant's argument that Matsunoshita does not teach to reproduce a photographic images, has been considered.

In reply: Matsunoshita does not teach the print media is a photograph with printed invisible digital data. However, scanning a photograph is inherent properties of a scanner.

Soscia, in the same area of printing and scanning invisible image on a printed media (column 1, lines 40-45, column 5, lines 30-40, column 6, lines 60-65), teaches scanning a photograph (column 1, lines 40-45) printed with digital images (column 5, lines 30-40, column 6, lines 60-65).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the print media of Matsunoshita to include a photographs with digital data printed in invisible ink.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the print media of Matsunoshita by the teaching of Soscia because of the following reasons: (a) since digital camera becomes more popular, it is desirable of creating photographs having digital data printed with invisible ink, column 1, Soscia; and (b) it would have allowed Matsunoshita's system to be widely used by users of digital camera without any modification to the system of Matsunoshita.

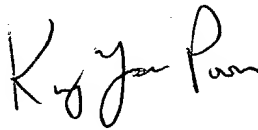
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With respect to applicant's argument that Matsunoshita does not teach encoding image data in IR ink.

Since the IR ink is invisible, no one can see an image. Therefore, the image data in the claims is being interpreted as the image data that can be seen by a user if the image is printed with visible ink. Clearly, if the IR ink is being replaced with visible ink, Matsunoshita will prints an image. Therefore, the data that controls how the IR ink is being applied to a print media is image data.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

A handwritten signature in black ink, appearing to read "King Y. Poon", written in a cursive style.

November 22, 2004

KING Y. POON  
PRIMARY EXAMINER